

Appl. No. 09/597,190
Amdt. dated June 16, 2005
Reply to Office action of May 17, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-8. (Cancelled).

9. (Previously presented) A high speed interconnection link that comprises:
a receiver configured to receive a plurality of channels;
a receiver logic circuit configured to receive signals from each of the plurality of channels and monitor the signals for symbols that are unique to each channel, wherein upon detecting unexpected symbols in the channels, the receiver logic circuit is configured to correct the order of the channels;
wherein the channel order correction is performed while a first set and a second set of training data are transmitted through the link;
wherein the training data comprises a binary word sequence that is transmitted across each channel in the link, wherein a first word of the sequence is a comma symbol and a second word of the sequence is the unique channel symbol.

10.-11. (Cancelled).

12. (Previously presented) A method of correcting the order of data signals received via a plurality of channels, wherein the method comprises:
transmitting symbols across the plurality of channels, wherein the symbols are unique to each channel; and
ordering the channels so that the unique symbols arrive at respective predetermined buffers;
wherein the plurality of channels are part of a communications link comprising a transmitter port and a receiver port wherein:
the receiver port comprises a lane reorder circuit that is configured to reroute the channel signals if the

Appl. No. 09/597,190
Amdt. dated June 16, 2005
Reply to Office action of May 17, 2005

receiver port detects an unexpected channel symbol in the signals transmitted by the transmitter port; and
a transmit port comprising a lane reorder circuit that is configured to reroute the channel signals if the transmit port does not detect a predetermined response from the receiver port;

wherein the order of the data signals is corrected during the transmission of a first and a second set of training data, the training data comprising a predetermined sequence of binary words that are transmitted through each channel in the link, wherein at least one of the binary words transmitted through each channel is a unique lane identifier.

13. (Original) The method of claim 12 wherein said transmitting includes:
the transmitter port transmitting the first set of training data to the receiver port;

the receiver port transmitting the first set of training data to the transmitter port if the receiver port receives the first set of training data;

the transmitter port transmitting the second set of training data to the receiver port if the transmitter port successfully detects a set of training data from the receiver port; and

the receiver port transmitting the second set of training data to the transmitter port if the receiver port successfully detects a set of training data;

wherein once both ports are transmitting and receiving the second set of training data, correction of the order of data signals in the channels is complete and the link is properly configured to transmit data.

14.-18. (Cancelled).